Is your IT Green?

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The enabling role of Information technology (IT) makes it a critical resource to invest in to achieve higher economic growth. Consequently, the pervasive use of IT amongst organizations in developing countries is gaining rapid momentum. Today, IT is no longer a support tool; it is a strategic asset that fosters sustainable competitive advantage and a driver for improved business performance. At the national level, the effective use of IT drives economic performance and social transformation. This makes IT resources a revolutionizing mechanism that is capable of bringing efficiency to all levels of the economy. But, evolution in IT is occuring at a very rapid pace. Despite the many opportunities that arise from these new developments, there is a growing concern that such rapid innovations can be detrimental to the environment. This situation puts a critical question on the table – Is Your IT Green?

The increasing capabilities and lower cost of the IT resources have triggered an increase in adoption of IT related peripherals for business and personal use. Today, IT peripherals such as laptops, personal computers (PCs), cellular and smart phones, data centers, networks and other hardware and software peripherals account for a substantial portion of organizations IT asset portfolio. The rapid innovation within the IT industry means there is a healthy and growing market for second-hand IT peripherals The poor economic conditions in developing economies coupled with increasing demand for IT investments means that many of these cheap substandard second-hand IT peripherals are being imported into the developing markets. These peripherals are economical to acquire but pose a significant threat to the environment. These resources have a short usage life, which contributes to the pollution problem of a special nature in developing economies. This form of pollution is known as electronic waste or e-waste.

A key reason for this pollution problem stems from the developed economies using developing economies as a dumping ground for their e-waste. Gartner reported that in 2008, 37 million refurbished PCs that exceeded their cycle life were exported to developing economies, and they estimated that this figure would rise to 69 million by the end of 2012 (Gartner, 2011). Some of these expired IT peripherals enter the developing economies in the guise of donation and charity (UNEP 2011). Within the next 6 to 8 years, developing countries will be disposing of 2 to 3 times as many computers as the developed world, resulting up to an estimated 1 billion computers being dumped annually (UNEP 2011).

E-Waste and its Ramifications

E-waste refers to those discarded IT peripherals due to obsolescence or malfunction. E-waste contributes to environmental degradations as they contain toxic substances that cause health and environmental hazards. What many fail to understand is that many IT peripherals contain highly toxic substances such as lead, mercury, cadmium, hexavalent, chrominium, polybrominated, biphenyls and polybrominated diphenyl ethers (Hanne 2001). If not disposed off properly, these harmful substances can contaminate the land as well as waterways causing serious health implications to nearby local communities. What adds to this concern is that most of the acquired second-hand IT peripherals are made of substances that are not degradable. This puts substantial strain on the environment, and in many instances, remains an eyesore for a prolonged period. Aside, while in use, these devices consume significant power due to their inefficient energy ratings and ancient design considerations.

Public Eye Sore: A pile of Discarded IT peripherals. Source Google

Reducing E-Waste via Green IT Strategies

Organizations need to be more responsible about their IT practices especially the IT peripheral procurement process. Such responsible IT practices are termed Green IT practices. Green IT is "*the practice of using computing resources efficiently [and in a responsible manner]"* (Lamb,2009).

The externalities resulting from the disposal of IT peripherals requires a proactive approach from organizations. There is a need to revamp and *green* the procuring process of IT peripherals. This means that organizations should start developing relationships with green IT suppliers. Green IT suppliers are those that distribute IT peripherals with internationally eco-friendly certifications. Organizations should implement appropriate vetting systems in relations to the nature of their acquired IT peripherals. This vetting process should include internal green IT policies that regulates the acceptable level of energy consumption of IT peripherals, the acceptable chemical compositions, eco ratings and so on.

IT and A Green Organisation: Source Google

Organizations will also need to develop sustainable recycling policies that will ensure the responsible disposal of these IT peripherals when impaired. An effective recycling policy that organizations can develop is the initiative of being "*Be a Computer Buddy*". The idea behind this green initiative is to reduce the import of used IT peripherals by localizing the recycling policy. For example, organizations can formalize "*a computer buddy*" relationship with schools, local nonprofit organizations, public libraries etc. As organizations continuously upgrade their IT, their used IT resources can now be better utilized by their *buddy* organizations instead of directly disposing them off. Such green IT strategies will result in a localized e-waste management approach, and it enable optimal use of existing second hand IT peripherals. The implementations of such green IT strategies can actually result in minimal environmental degradation via e-wastes and promotes a safer and a healthier community.

E-waste, if properly managed, can even serve as a potential source of revenue. A statement by the UN Under- Secretary-General Achim Steiner states that *"In addition to curbing health problems, boosting developing countries' e-waste recycling rates can have the potential to generate decent employment, cut greenhouse gas emissions and recover a wide range of valuable metals including silver, gold, palladium,*

copper and indium." Investing in Green IT strategies therefore can turn these e-challenges into e-opportunities.

Greening IT with a Buddy System

Today, Green IT may not be a priority area in developing economies because of other major economic challenges such as poverty, illiteracy, health issues and so on. These prevalent economic challenges are the driving force behind the aspiration of high economic growth amongst developing economies. Organizations in developing economies need to understand that the pursuit for high economic growth cannot be achieved without externalities to the environment. It is vital that these organizations start to concentrate in sustainable IT practices such as Green IT to ensure a healthy environment for future generations. On a national level, Green IT investments can contribute to sustainable economic growth.

Conclusion

The need for environmental protection is a major concern for developing economies. As the vehicle for economic activities, organizations have a responsibility to operate in a responsible manner that does not bring harm to the society. The pervasive use of IT amongst organizations brings about a renewed sense of social responsibility to society especially to the environment. Investing in Green IT initiatives is an avenue that organizations can fulfill this social responsibility. Green IT investments are crucial in striking a balance between IT driven economic activities and safeguarding the environment. Green IT investments are also enablers of sustainable economic growth. By only procuring environmentally certified IT related

peripherals and developing environmental management systems that promote the effective recycling of obsolete IT peripherals, organizations are actually safeguard the environment. Skeptics will view green IT strategies as another burdensome recommendations that does nothing but increase overheads, they should however be reminded that such overheads are necessary in order to create a safer and a cleaner environment for the future generation.

References

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